

IN THE CLAIMS:

Please amend the claims as follows:

Cancel claims 1 through 25.

Claim 26. A spark plug comprising a central electrode; an insulator provided exterior to the central electrode; a main metallic shell provided exterior to the insulator; a ground electrode having one end coupled to the main metallic shell and another end facing the central electrode; and an igniting portion secured to at least one of the central electrode and the ground electrode and forming a spark plug gap;

wherein a chip including an Ir-based alloy including Rh in an amount ranging from 7wt% to 10wt% is placed on a tip end face of the central electrode comprising Ni alloy; and

an annular welding portion laid across the chip and the central electrode is formed so as to form the igniting portion including an Ir-based alloy including Rh in an amount ranging from 7wt% to 10wt%.

Claim 27. A spark plug comprising a central electrode; an insulator provided exterior to the central electrode; a main metallic shell provided exterior to the insulator; a ground electrode having one end coupled to the main metallic shell and another end facing the central electrode; and an igniting portion secured to at least one of the central electrode and the ground electrode and forming a spark plug gap;

wherein a chip including an Ir-based alloy including Rh in an amount ranging from 10wt% to 25wt% is placed on a tip end face of the central electrode comprising Ni alloy; and
an annular welding portion laid across the chip and the central electrode is formed so as to form the igniting portion including an Ir-based alloy including Rh in an amount ranging from 10wt% to 25wt%.

Claim 28. The spark plug according to claim 26, wherein the welding portion is exposed to an outer periphery of the chip, and is not exposed to the tip end face of the chip.

Claim 29. The spark plug according to claim 27, wherein the welding portion is exposed to an outer periphery of the chip, and is not exposed to the tip end face of the chip.

Claim 30. The spark plug according to claim 26, wherein a taper portion is formed at a tip end side of the central electrode, and the chip is bonded to the tip end face of the taper portion so as to form the igniting portion.

Claim 31. The spark plug according to claim 27, wherein a taper portion is formed at the tip end side of the central electrode, and the chip is bonded to the tip end face of the taper portion so as to form the igniting portion.

Claim 32. The spark plug according to claim 30, wherein the central electrode is arranged such that the whole of the taper portion protrudes from an outside of an opening edge of a through hole of the insulator, the central electrode being inserted into the through hole.

Claim 33. The spark plug according to claim 31, wherein the central electrode is arranged such that the whole of the taper portion protrudes from an outside of an opening edge of a through hole of the insulator, the central electrode being inserted into the through hole.

Claim 34. The spark plug according to claim 26, wherein the chip is produced by working a molten alloy including an Ir-based alloy including Rh in an amount ranging from 7wt% to 10wt% at 700°C or more by hot rolling or hot forging to a wire or rod shape, and thereafter, cutting the worked alloy to a specified length in a longitudinal direction.

Claim 35. The spark plug according to claim 27, wherein the chip is produced by working a molten alloy including an Ir-based alloy including Rh in an amount ranging from 10wt% to 25wt% at 700°C or more by hot rolling or hot forging to a wire or rod shape, and thereafter, cutting the worked alloy to a specified length in a longitudinal direction.

Claim 36. The spark plug according to claim 26, wherein the chip is produced by working a molten alloy including an Ir-based alloy including Rh in an amount ranging from 7wt% to 10wt% at 700°C or more by hot rolling to a sheet, hot blanking the sheet to a chip of a specified shape, and welding and bonding the chip.

Claim 37. The spark plug according to claim 27, wherein the chip is produced by working a molten alloy including an Ir-based alloy including Rh in an amount ranging from 10wt% to 25wt% at 700°C or more by hot rolling to a sheet, hot blanking the sheet to a chip of a specified shape, and welding and bonding the chip.

Cancel Claim 38.

Claim 39. The spark plug according to claim 27, wherein the igniting portion includes an Ir-based alloy including Rh in an amount ranging from 15wt% to less than 25wt%.

Cancel Claim 40.

Claim 41. The spark plug according to claim 39, wherein the igniting portion includes an Ir-based alloy including Rh in an amount ranging from 18wt% to less than 22wt%.

Cancel claims 42 through 44.